

# GIT INIT , GIT REMOTE , GIT RESET , GIT STASH , GIT FORK

## GIT INIT

- Using “git init” command used to create an new repository in a project folder. “.git” hidden files to be created.

```
hariharan@LAPTOP-JK39PR78 MINGW64 ~/downloads/harigame
$ cd downloads
bash: cd: downloads: No such file or directory

hariharan@LAPTOP-JK39PR78 MINGW64 ~/downloads/harigame
$ git init
Initialized empty Git repository in C:/Users/hariharan/Downloads/harigame/.git/

hariharan@LAPTOP-JK39PR78 MINGW64 ~/downloads/harigame (master)
$ ls -la
total 44
drwxr-xr-x 1 hariharan 197121 0 Jan  6 18:43 ./
drwxr-xr-x 1 hariharan 197121 0 Jan  6 18:33 ../
drwxr-xr-x 1 hariharan 197121 0 Jan  6 18:43 .git/
```

- Using “git branch -m master main” command used to switch the branch master to main.

```
hariharan@LAPTOP-JK39PR78 MINGW64 ~/downloads/harigame (master)
$ git branch -m master main

hariharan@LAPTOP-JK39PR78 MINGW64 ~/downloads/harigame (main)
$ git push origin main
```

## GIT REMOTE

- Using “git remote -v” command does not list in repository using git init using “git remote add origin <link>” to list in remote repository.

```
$ git remote -v

hariharan@LAPTOP-JK39PR78 MINGW64 ~/downloads/harigame (master)
$ git remote add origin https://github.com/hharani899-1gtm/harigame.git

hariharan@LAPTOP-JK39PR78 MINGW64 ~/downloads/harigame (master)
$ git remote -v
origin https://github.com/hharani899-1gtm/harigame.git (fetch)
origin https://github.com/hharani899-1gtm/harigame.git (push)
```

- Using “git push -f” command used to forceful push to an github.

```
hariharan@LAPTOP-JK39PR78 MINGW64 ~/downloads/harigame (main)
$ git push -f origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 413 bytes | 137.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/hharani899-1gtm/harigame.git
+ 2c3c947...bba58ae main -> main (forced update)
```

## GIT RESET

- Using “git reset –soft <7 digit>” command used to head is move to an given file.

```
hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git reset --soft 4d91076

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   file4

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git log --oneline
4d91076 (HEAD -> main) thirdcommit
bba58ae secondcommit
91f174a firstcommit
hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
```

- Using “git reset –mixed commit hash” command used to unstage of an file.

```
hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git reset --mixed commit bba58ae
fatal: ambiguous argument 'commit': unknown revision or path not in the working tree.
use '--' to separate paths from revisions, like this:
'git <command> [<revision>...] -- [<file>...]'

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   file4

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git reset --mixed bba58ae

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    file3
    file4

nothing added to commit but untracked files present (use "git add" to track)

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git log --oneline
bba58ae (HEAD -> main) secondcommit
91f174a firstcommit
```

- Using “git reset –hard commit hash” command used to delete of this file.

```
hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git reset --hard 91f174a
HEAD is now at 91f174a firstcommit

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    file3
    file4

nothing added to commit but untracked files present (use "git add" to track)

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git log --oneline
91f174a (HEAD -> main) firstcommit

hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ ls
file.txt file3 file4
hariharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
```

## GIT STASH

- Using “git statsh” command used to save an temporary uncommit changes “git stash list” command to list an temporary uncommit changes “git stash pop” command to delete an uncommit changes.

```
MINGW64 ~/downloads/harigame
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   file3
        new file:   file4
        new file:   file5

harisharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git commit -m "fifthcommit"
[main fe956e0] fifthcommit
 3 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file3
 create mode 100644 file4
 create mode 100644 file5

harisharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git log --oneline
fe956e0 (HEAD -> main) fifthcommit
91f174a firstcommit

harisharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ touch file7

harisharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git add .

harisharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git stash
Saved working directory and index state WIP on main: fe956e0 fifthcommit

harisharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git stash list
stash@{0}: WIP on main: fe956e0 fifthcommit

harisharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git stash pop stash@{0}
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   file7

Dropped stash@{0} (c1bff19909c81cc91a87355604df17e91beac62e)

harisharan@LAPTOP-JKJ9PR78 MINGW64 ~/downloads/harigame (main)
$ git status
On branch main
```

## GIT FORK

- Using git fork is a personal,server side copy of an entire repository under your own account allowing to freely experiment and making changes without affecting the original project.

